





Addiction, Microarrays, and Gene Discovery

May 31 – June 1, 2007

Embassy Suites Hotel at the Chevy Chase Pavilion Washington, DC

Agenda

Day 1 — Thursday, May 31, 2007

8:00 - 8:30 a.m.	Registration
8:30 – 8:40 a.m.	Welcome and Charge to the Group Jonathan Pollock, Ph.D. National Institute on Drug Abuse
8:40 – 8:50 a.m.	Introductions John Satterlee, Ph.D. National Institute on Drug Abuse
8:50 – 9:30 a.m.	An Overview of New Microarray Platforms, GeneNetwork, MouseBIRN, and the Perlegen-NIEHS SNP Collection Robert W. Williams, Ph.D. University of Tennessee Health Science Center
9:30 – 9:50 a.m.	Combination of QTL Mapping and Gene Expression Microarrays to Identify Candidate Genes for Sensitivity to the Acute Effects of Drugs in Mice and Humans Abraham Palmer, Ph.D. University of Chicago
9:50 – 10:10 a.m.	Allele-Specific Gene Expression in Human Brain Charles Glatt, M.D., Ph.D. Weill Medical College of Cornell University
10:10 – 10:30 a.m.	Break

10:30 - 10:50 a.m. Using Inbred Strains and Microarray Analysis to Identify **Genes and Gene Networks Involved in Addiction** Lisa Tarantino, Ph.D. Genomics Institute of the Novartis Research Foundation 10:50 – 11:10 a.m. A Behavior Genetic Strategy for Linking Genes to the **Behavioral Effects of Morphine** Gregory I. Elmer, Ph.D. University of Maryland 11:10 - 11:30 a.m. **Identifying Acute Ethanol-Responsive Gene Networks by Expression Profiling Across Recombinant Inbred Panels** Michael F. Miles, M.D., Ph.D. Virginia Commonwealth University 11:30 - 11:50 a.m. The Collaborative Cross, a Reference Population for Systems **Genetics Analysis of Addiction** Elissa J. Chesler, Ph.D. Oak Ridge National Laboratory 11:50 a.m. – 12:10 p.m. Comparing Gene Expression With Colorimetric ISH and **Microarray Data** Michael Hawrylycz, Ph.D. Allen Institute for Brain Science 12:10 – 1:20 p.m. Lunch (on your own) Prenatal Drug-Induced Alterations in Gene Expression, Brain 1:20 – 1:40 p.m. Structure, and Function Barry Kosofsky, M.D., Ph.D. Weill Medical College of Cornell University **Functional Genomics of Quantitative Traits: Expression-Level** 1:40 - 2:00 p.m. **Polymorphisms of QTLs Affecting Disease Resistance** Pathways in Arabidopsis Rebecca W. Doerge, Ph.D. Purdue University **Chrna7 Congenic Mice: Amenable to Meaningful Microarray** 2:00 - 2:20 p.m. **Analysis?** Jerry A. Stitzel, Ph.D. University of Colorado at Boulder MAGIC-B: Gene Arrays, bQTLs, eQTLs, and Candidate 2:20 - 2:40 p.m. Genes Boris Tabakoff, Ph.D. University of Colorado at Denver

Break

2:40 - 3:00 p.m.

3:00 – 3:20 p.m.

Brain Gene Expression on Complex Genetic Backgrounds
Robert Hitzemann, Ph.D.
Oregon Health & Science University

3:20 – 3:40 p.m.

Large-Scale Genomic Replacements in the Mouse: An
Example of a Precise 6 Megabase Genetic Humanization
David Valenzuela, Ph.D.
Regeneron Pharmaceuticals, Inc.

3:40 – 4:00 p.m.

Break

4:00 – 6:00 p.m.

Breakout Session 1
Scientific Opportunities and Obstacles

Adjournment

6:00 p.m.

Day 2 — **Friday, June 1, 2007**

8:00 – 8:30 a.m. **Registration**

8:30 – 8:35 a.m. Charge to the Group

8:35 – 8:40 a.m. Presentation, Group A

8:40 – 8:45 a.m. Presentation, Group B

8:45 – 10:20 a.m. **Breakout Session 2**

Tools and Resources for the Future

10:20 – 10:40 a.m. Break

10:40 – 11:00 a.m. **Presentation, Group A**

11:00 – 11:20 a.m. **Presentation, Group B**

11:20 a.m. – 12:20 p.m. Plenary Group Discussion

12:20 – 12:30 p.m. Closing Remarks

12:30 p.m. Adjournment